

### REMARKS

These remarks are responsive to an Office Action dated March 11, 2005 (hereinafter the "Office Action"). As noted in the Office Action, claims 1-32 then on file were pending, while claims 33-38 had been withdrawn from consideration by the Examiner on the basis that they were directed to a distinct invention. Claims 1-32 were rejected by the Examiner, as discussed below. However, the Applicant has cancelled these claims and herein introduces new claims 39-57. It is submitted that these new claims are in order for allowance.

### Drawings

In the Office Action, the drawings were objected to under 37 C.F.R. §1.83(a). Specifically, the drawings were held to be objectionable in that they did not show every feature of the invention specified in the claims. The Examiner pointed out three examples, but stated that "the claims are replete with the above drawing errors" and that the drawings did not clearly show all method steps recited in the claims.

As this objection is based on now-cancelled claims, the Applicant submits that the objection is overcome. Accordingly, there is no need to submit a proposed drawing correction or corrected drawings. The Applicant would also respectfully submit that the drawings show every feature of the invention specified in the new claims.

### **Indefiniteness**

Claims 1-32 were rejected under 35 U.S.C. §112, 2<sup>nd</sup> paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter regarded as the invention. The claims were held to be "replete with errors", a number of examples being presented, with the result that the Examiner found it impossible to properly construe claim scope. As noted above, the Applicant has cancelled the claims which grounded this rejection, and new claims 39-57 have been presented herein. It is accordingly submitted that the rejection has been overcome. The Applicant is unaware of any errors in the new claims that could ground a rejection based on indefiniteness. It is believed that the new claims particularly point out and distinctly claim the subject matter regarded as the invention.

### **Anticipation by Mourad et al.**

Claims 1-9 and 11-32 were rejected under 35 U.S.C. §102(b) as being anticipated by Mourad et al. (United States Patent No. 6,078,961). The rejected claims have been cancelled, and it is therefore submitted that the rejection is overcome. The Applicant also believes that the new claims 39-57 are patentably distinct over Mourad et al.

Claim 39 recites, **inter alia**,

... connecting a computing device to a first server via a data communication network, the computing device including a display screen,

communicating data from the first server to the computing device via the data communication network, the data defining a first graphical user interface that provides for user selection of multimedia content;

displaying the first graphical user interface on the display screen of the computing device;

in response to user interaction with the first graphical user interface whereby the user selects particular multimedia content, communicating data

identifying the particular multimedia content from the computing device to the first server over the data communications network;

connecting a second server to a media receiver at the customer's premises via a distribution network, the second server adapted to delivering multimedia content to the media receiver, **the media receiver separate and distinct from the computing device;**

**communicating a command to the media receiver via the distribution network,** the command providing data that enables the media receiver to receive the particular media content;

upon receipt of the command at the media receiver, enabling the media receiver to receive the particular media content; and

communicating the particular media content from the second server to the media receiver over the distribution network where it is received at the media receiver for output therefrom. [emphasis added]

Mourad et al. fails to teach or suggest important limitations of this claim.

More particularly, Mourad et al. teaches "a method for real-time delivery of multimedia information requiring a very high bandwidth path over the Internet" (column 1, lines 9 to 11). Mourad et al. highlights the problems in using of a single full duplex link to exchange data over the Internet, specifically for the receipt of multimedia content at a personal computer, reciting the following:

"In all cases, the information is transmitted to the client at a data rate which cannot exceed the bandwidth of the full duplex link between the server and the client. Typically this is limited to a range from a few kilobits per second to a few megabits per second. In most cases, clients are not directly connected to web servers over a high bandwidth link but rather communicate across a connection spanning several different links interconnected by interworking gateways of various types such as routers, bridges and switches. Consequently, it is usually impossible to guarantee continuous streaming of data over such a concatenation of links and switches or routers. This turns out to be truly problematic if the data to be streamed demands stringent delay and jitter requirements, which is the case of video and audio streams. The current solution to this problem is to require the client device to first receive the multimedia information and store it in its local disk, and then play it back to the user from that local storage, thus eliminating the effect of jitter from the network. This approach has at least two main disadvantages. First, the client device has to dedicate storage space to buffer the received multimedia information before it can start to play it to the user. This space may be significant at times. This also implies that client devices must have large local storage

resources in order for them to be able to handle incoming multimedia traffic. Network computers and other low cost communication devices generally do not provide such resources. Second, the fact that multimedia information has to be stored, even temporarily, in the client device poses some real concerns among the copyright owners of this information, who would like to see their material delivered exclusively to those users who cannot physically store it and subsequently have the possibility to reuse or redistribute it in an illegal manner. [column 1, line 49, to column 2, line 16]

The solution proposed by Mourad et al. is to enable the server to use a high bandwidth shared link to transfer the large multimedia files. When a multimedia file is to be played back at the user screen without necessarily downloading it, then the server will allocate the necessary bandwidth on a high bandwidth simplex link, such as a cable television channel or a satellite downlink channel, and use this allocated bandwidth to transfer the multimedia file to the client at a data rate which makes it possible for the client to receive and play back the multimedia information in real time, without having to download it first to a disk storage for buffering as mentioned hereinabove. [column 2, lines 45 to 54]. Mourad et al. accordingly teaches a means to enable receipt of large multimedia content files at a personal computer. To achieve this, the personal computer (or "client workstation") comprises both computing functionality for requesting content and a media receiver application. FIG. 3 illustrates typical steps involving multimedia information communication over the Internet pursuant to the present invention. A client work station 16 uses a client web browser 14 and full duplex adapter 3 to issue a request for information, on a multimedia file 22 which request is transmitted over the PSTN 5 to the gateway 6 and multimedia server 24. The multimedia server 24 then transmits the multimedia data through WAN/LAN 25, cable TV head end 8, cable TV network 4, and receive only adapter card 2 to the multimedia viewer 18 at the client work station 16. [column 4, lines 46 to 55]

The method of claim 39 recites "the media receiver being separate and distinct from the computing device". As was seen in the discussion above, Mourad et al. teaches a single personal computer device that sends multimedia content requests over the Internet and also receives and plays the content thereon (e.g. a monitor). It thus fails to teach or suggest having the computing device and media receiver being separate and distinct elements as recited in claim 39.

In addition, the method of claim 39 recites "communicating a command to the media receiver via the distribution network." In contrast, Mourad et al. teaches communicating the cable television channel number and transport stream over the data communication network (e.g. the PSTN dial-up Internet access) - not over the distribution network that is used to deliver the content to the receiver as recited in the claim. Importantly, communicating the command over the distribution network advantageously allows for control over the media receiver in the event that the data communication network fails or is temporary in nature (e.g., the data communication network employs dial-up Internet access).

Thus, because Mourad et al. fails to teach or suggest important limitations of claim 39, Applicant respectfully submits that claim 39 is patentably distinct from Mourad et al.

**Anticipation by Theurer et al.**

Claims 1-32 were rejected under 35 U.S.C. §102(b) as being anticipated by Theurer et al. (United States Patent No. 4,008,369). This reference was first introduced into the prosecution in the pending Office Action. As stated above, the rejected claims

have been cancelled and it is therefore submitted that this rejection is overcome. The Applicant also believes that the new claims 39-57 are patentably distinct over Theurer et al.

Theurer et al. teaches a telephone interfaced subscription cable television system for distributing "premium" program channels, where program requests are made by telephone. The problem being addressed by Theurer et al. is defined as follows.

"Prior art systems generally require the use of a computer or human operator for controlling and/or processing incoming subscriber telephoned requests. In addition, prior systems which utilize signal converters or program channel selectors at the subscriber terminal or location require manual subscriber operation of the converter or selector. Prior art systems also require a computer or other equipment at the central station or head end for addressing each such subscriber located device or terminal. Because of the complexity of these prior art systems, the capital [sp] investment cost for their initial installation, as well as the cost of their operation and maintenance, are high and limit their use to installations having a relatively large number of paying subscribers. The use of such prior art systems in even large hotels are therefore not generally profitable." [column 1, lines 24 to 40]

Theurer et al. attempts to solve this problem by providing "a conventional coaxial cable television signal distribution network interconnecting a central station and a plurality of subscriber terminals and associated television sets", to enable ordering and viewing of restricted or "premium" channels [column 2, lines 16 to 19]. Conversion of the premium channels is provided by a subscriber room terminal which interfaces the subscriber's television set with the coaxial cable signal distribution network. Conversion of any selected one of the premium channels as may be desired by the subscriber is made automatically upon a telephone dialed request by the subscriber to the central station. Subscriber request for such premium program viewing is made by use of the subscriber's telephone. [column 2, lines 47 to 55]. The control and monitoring means upon receiving

a satisfactorily dialed subscriber request which includes the proper room and verification digits, will respond by providing enabling signals to the requesting subscriber telephone and room terminal via the telephone network. These enabling signals in the one embodiment described herein comprise a pair of audio tones which are inductively coupled from the subscriber telephone to the subscriber room terminal. The enabling signals have frequencies that are peculiar to the particular requested premium channel. A unique pair or combination of tones is provided for each premium program channel available for subscriber viewing. The subscriber room terminal responds to the enabling signals by providing a D.C. tuning voltage to a voltage or varactor tuned premium channel converter within the subscriber room terminal. A different D.C. voltage level is provided for each pair of enabling tones representing each of the available premium program channels. The tuning voltage level is therefore a function of the requested premium channel. [column 3, lines 31 to 51].

Claim 39 recites, *inter alia*,

**... connecting a computing device to a first server via a data communication network, the computing device including a display screen, communicating data from the first server to the computing device via the data communication network, the data defining a first graphical user interface that provides for user selection of multimedia content;**

**displaying the first graphical user interface on the display screen of the computing device;**

**in response to user interaction with the first graphical user interface whereby the user selects particular multimedia content, communicating data identifying the particular multimedia content from the computing device to the first server over the data communications network;**

**connecting a second server to a media receiver at the customer's premises via a distribution network, the second server adapted to delivering multimedia content to the media receiver, the media receiver separate and distinct from the computing device;**

**communicating a command to the media receiver via the distribution network, the command providing data that enables the media receiver to receive the particular media content;**

upon receipt of the command at the media receiver, enabling the media receiver to receive the particular media content; and  
communicating the particular media content from the second server to the media receiver over the distribution network where it is received at the media receiver for output therefrom. [emphasis added]

Theurer et al. fails to teach or suggest important limitations of this claim.

More particularly, the method of claim 39, recites the communication of a graphical user interface from a server to the computing device and use of the graphical user interface to select multimedia content. In contrast, Theurer et al. employs specific DTM-tones dialed by the user to communicate the user-selection information. Also, as was the case with Mourad et al. as discussed above, Theurer et al. neither teaches nor suggests communicating a command to the media receiver via the distribution network which delivers the desired content to the user. Instead, Theurer et al. controls activation of the media receiver over a data path through the telephone.

Thus, because Theurer et al. fails to teach or suggest important limitations of claim 39, Applicant respectfully submits that claim 39 is patentably distinct from Theurer et al.

**Unpatentable over Mourad et al. in view of Baker et al.**

Claims 1-9 and 11-32 were also rejected under 35 U.S.C. §103(a) as being unpatentable over Mourad et al. in view of Baker et al. (United States Patent No. 5,583,561). The Examiner asserts that it would be obvious to modify the invention of Mourad et al. to include the generic cable television system elements of Baker et al., the motivation for such modification being the desirability of lowering the cost of service per view for selective retrieval and distribution of digital video. Applicant has cancelled



claims 1-9 and 11-32, and it is accordingly submitted that the rejection is overcome. The new claims 39-57 are believed to be patentably distinct over Mourad et al. in view of Baker et al. Importantly, the teachings of Baker fail to remedy the shortcomings of Mourad et al.

Baker et al. teaches a video-on-demand system recited as follows:

“... a video on-demand system controlled by the user in real time that employs a multi-cast digital video data server capable of selectively retrieving encoded, compressed, digital video data from a video library on demand by a large number of viewers and distributing the video data through one or more distribution networks to a display system located at each viewer's site. The techniques of multi-casting and synchronization groups allow the video data server to increase the overall throughput for gaining access to the data retrieved from the video library, thereby increasing the number of viewers capable of being serviced by the system.” [column 4, lines 27 to 38].

In addition, Baker teaches a method for distributing video data as follows:

“... a method is described for distributing selected real-time, encoded, compressed, digital video data on demand by a digital video data server to one or more display systems for viewing by viewers, each viewer being resident at a different site, and includes the step of providing a video library containing encoded, compressed, digital video data representing multiple programs, each program consisting of multiple frames of data. A request for service is received by the digital video data server from a viewer, a request being a command to play, pause, rewind, forward, or stop a selected program. The viewer is assigned to one of a set of synchronization groups when the viewer's request is play, each group consisting of zero or more other viewers who requested the distribution of the same program within a preceding predetermined amount of time of each other. The viewer is removed from the assigned synchronization group when the viewer's request is to pause or stop the viewing of the selected program. The viewer is reassigned to another synchronization group when the viewer's request is rewind or move forward the distribution of the frames of the selected program. The digital video data server continually retrieves in temporal order the frames of each selected program, starting with the beginning of each program. A copy of the current frames for the selected programs is sent in real-time to all viewers in each synchronization group. The process of responding to viewer requests for service and retrieval and distribution of frames is perpetual.” [column 5, lines 11 to 38].

Importantly, the teachings of Baker fail to remedy the shortcomings of Mourad et al. as discussed above. More particularly, Baker fails to teach or suggest communicating a command (which provides data that enables the media receiver to receive particular media content) to the media receiver via the distribution network. For these reasons, claim 39 is clearly not rendered obvious by modifying Mourad et al. with the teaching of Baker et al.

**Unpatentable over Mourad et al. in view of Geile et al.**

Claim 10 was rejected under 35 U.S.C. §103(a) as being unpatentable over Mourad et al. in view of Geile et al. (United States Patent No. 6,279,158). This claim has now been cancelled, thereby addressing the rejection. In addition, Applicant respectfully submits that new claims 39-57 are patentably distinct over the combination of Mourad et al. and Geile et al. Importantly, the teachings of Geile et al. fail to remedy the shortcomings of Mourad et al.

Geile et al. teaches a communication system as follows:

“... a communication system with multi-carrier telephony transport and methods for transmitting data over a telecommunication system, including the use of indicators of bandwidth allocation. The telecommunication system uses a multi-carrier transmission scheme from a head end to a service unit wherein the service unit is assigned to a subband of a transmission channel of the telecommunication system. The subband includes a number of payload channels that transmit data at a first rate and a control channel that transmits data at a second rate. The second rate being slower than the first rate. The method comprises receiving a request to transmit data to a service unit at the second, slower rate and determining whether to transmit the data at the first, faster rate based on the size of the data. The method further includes allocating the payload channel to transmit the data to the service unit over the payload channel when a payload channel in the subband is available to transmit the data at the first rate. In addition, the method includes reallocating the idle payload channel to transmit the data to the service unit over the payload channel at the first

rate when the payload channels are allocated to service units and at least one of the allocated payload channels is idle.” [column 4, line 61, to column 5, line 13].

Although Geile et al. does disclose the use of indicators of bandwidth allocation, as stated by the Examiner, this element – when used to modify Mourad et al. – fails to remedy the shortcomings of Mourad et al. as discussed above. The Applicant therefore respectfully submits that Mourad et al., if modified by Geile et al., would not render obvious the claim 39 as presented herein.

**Unpatentable over Theurer et al. in view of Anderson**

Finally, claims 1-32 were rejected under 35 U.S.C. §103(a) as being unpatentable over Theurer et al. in view of Anderson (United States Patent No. 6,148,142), both of which references were first introduced into the prosecution by the pending Office Action. As discussed above, these claims have now been cancelled, and it is submitted that the rejection has accordingly been overcome. It is respectfully submitted that new claims 39-57 are patentably distinct over the combination of Theurer et al. and Anderson. Importantly, the teachings of Anderson fail to remedy the shortcomings of Theurer et al.

Anderson describes a video server system for use by a large number of users, employing a Redundant Array of Inexpensive Drives (RAID) disk drive array. The prior art systems are described as being adequate for only small numbers of users. However, a data rate of approximately 375 kilobytes/second per user is required to provide substantially real-time viewing. The data throughput rate scales in proportion to the number of users. A typical personal class computer is capable of a data rate of approximately 6 megabytes. [column 2, lines 11 to 16]. Anderson addresses this problem

by teaching a system enabling "very high" data rate operation, which system employs a Small Computer System Interface (SCSI) bus. In a video server system according to the present invention, a plurality of movies are distributively stored in digital form on a mass storage unit such as a Redundant Array of Inexpensive Drives (RAID) disk drive system such that they can be viewed on demand by multiple users. A master controller receives movie requests from users, and generates designation commands through a SCSI data bus that designates a retrieval controller at the requesting user's facility, and locations of the requested movie data in the RAID system. Successive designation commands are generated for successive blocks of the movie data. A designated retrieval controller reads a designated block of data from the RAID system through the SCSI bus, and converts the retrieved data into video picture and audio format to show the movie on a television receiver at the requesting user's facility. [column 2, lines 29 to 44].

As can clearly be seen, Anderson fails to remedy the shortcomings of Theurer et al. as discussed above. The Applicant therefore respectfully submits that Theurer et al., if modified by Anderson, would not render obvious claim 39 as presented herein.

#### Dependent Claims

The dependent claims 40-57 are patentable over the cited prior art for those reasons advanced above with respect to claim 39 from which they respectfully depend and for reciting additional features that are not taught nor suggested by the cited prior art.

For example, dependent claim 41 recites that "the command is communicated from the controller to the media receiver upon a determination that sufficient bandwidth

is available over the distribution network between the second server and the media receiver.” Nowhere does the prior art teach or suggest this feature.

In another example, dependent claim 56 recites, **inter alia**,

“... communicating data from the first server to the computing device via the data communication network, the data defining a third graphical user interface that provides for user control over re-communication of the command to the media receiver; and

wherein, upon receipt of the re-communicated command at the media receiver, the media receiver is enabled to receive the particular media content communicated from the second server to the media receiver over the distribution network.

Nowhere does the prior art teach or suggest these features.

In yet another example, dependent claim 57 recites that “the data communicated from the first server to the computing device defines a graphical user interface that provides for user selection of a particular media receiver from a plurality of media receivers located at the customer’s premises, wherein the command is communicated to the particular media receiver over the data communication network, and wherein the particular media content is communicated to the particular media receiver over the distribution network.” Nowhere does the prior art teach or suggest these features.

**Conclusion**

In light of all of the above, it is submitted that the claims are in order for allowance, and prompt allowance is earnestly requested. Should any issues remain outstanding, the Examiner is invited to call the undersigned attorney of record so that the case may proceed expeditiously to allowance.

Respectfully submitted,



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